Declaration of Darin L. Dotson

1. I Darin L. Dotson declare as follows:

2. I hold a Ph.D in Polymer Organic Chemistry from Virginia Polytechnic Institute and State University.

3. For approximately 8 years I have been involved in the development of polymer nucleating agents for Milliken & Company, a manufacturing company producing nucleating agents and owner of application 10/609,080.

4. I currently hold the position of Research and Development Associate with Milliken & Company.

5. I have reviewed the claims of application 10/609,080 as well as the content of U.S. patent 6,518,377 to Shamshoum et al. and the Office Action of January 22, 2004.

6. I note that the Office Action states that in his view the difference between the cooling rate disclosed in Shamshoum et al. and the cooling rate recited in the claims of application 10/609,080 would have a very minimal effect on crystallization temperature obtained at the different cooling rates.

7. Based on my review of the cited reference in combination with recent tests carried out at different cooling rates and my experience in the art, in my opinion the conclusion reached in the Office Action.

8. In reaching his conclusion the statements in the Office Action appear to have mistakenly concluded that the cooling rate disclosed in in Shamshoum et al. at col. 12, line 18 is 25°C/min. Based on my reading of the reference, the cooling rate disclosed at that location is actually 10 °C/min. Thus, instead of a cooling rate which is 5 °C/min. faster than the rate recited in the claim, the cooling rate disclosed in the cited reference is actually 10 °C/min slower. Accordingly, in relative terms, the cooling rate recited in the claims is about twice as fast as the cooling rate in Shamshoum et al..

10. In order to evaluate the effect on crystallization temperature of a 10 °C/min difference in cooling rate I subjected a plaque of the material of Example 1 of application 10/609,080 to cooling at 10 °C/min and 20 °C per min and noted the resultant crystallization temperature. At a cooling rate of 10 °C/min the crystallization temperature was 81.7 °C. At a cooling rate of 20 °C/min the

crystallization temperature was 73.9 °C. Thus, the 10 °C increase in cooling rate yielded a substantially lower crystallization temperature.

11. This experimental data is in alignment with general knowledge in the art. That is, a substantial difference in crystallization temperature is observed in a given material or a given process which is evaluated at (1) 10°C /min. and then also evaluated at (2) 20°C/min. cooling rates. Thus, cooling rate significantly affects crystallization temperature in a given material.

12. In view of the similarity of the base thermoplastic materials in Shamshoum et al. and Example 1 of application 10/609,080 a similar change in crystallization temperature would be expected in Shamshoum et al.. This indicates that the crystallization temperature of the material disclosed in Shamshoum et al. would be well below the claimed level of 71 °C if a cooling rate of 20 °C/min is used in Shamshoum.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, and that such willful false statements may jeopardize the validity of the current application or any patent issued thereon.

Respectfully submitted,

Darin L. Dotson

Date: May 20, 2004